

**WHAT IS CLAIMED IS:**

**1. A horizontal band saw comprising:**

**a base assembly comprising**

**a frame having a front, a rear and a transverse passage formed between the front and the rear;**

**an elevating device mounted in the frame; and**

**a conveyer mounted in the transverse passage of the frame and supported by the elevating device;**

**a sawing mechanism pivotally mounted on the frame and comprising**

**a housing pivotally mounted on the frame and having a bottom and a cutting window above the conveyer; and**

**a bandsaw blade mounted in the housing and having a segment traversing the cutting window; and**

**a bevel cutting adjustment device connecting the frame to the housing and the bevel cutting adjustment device comprising**

**a rear pivot assembly mounted on the rear of the frame and pivotally connected to the bottom of the housing; and**

**a front adjustment assembly mounted on the front of the frame and connected to the bottom of the housing, and the front adjustment assembly comprising**

**an inclination adjusting assembly connecting the front of the frame to the bottom of the housing and the inclination adjusting assembly comprising**

**a top stationary bracket mounted on the bottom**

1 of the housing and having a pivot pin;  
2 a bottom stationary bracket mounted on the  
3 front of the frame and aligned with the top stationary bracket;  
4 a pivot seat pivotally mounted on the bottom  
5 stationary bracket and having a top;  
6 an adjusting gear rotatably mounted in the top  
7 of the pivot seat and having an axial threaded hole;  
8 a driving assembly mounted on the pivot seat to  
9 turn the adjusting gear; and  
10 a leader threaded rod screwed into the axial  
11 threaded hole of the adjusting gear and having a top end pivotally connected to  
12 the pivot pin of the top stationary bracket and a bottom end extending out of the  
13 pivot seat;  
14 wherein the leader threaded rod selectively extends out of and retracts  
15 into the axial threaded hole of the adjusting gear to move the top stationary  
16 bracket closer to or farther away from the conveyer as the adjusting gear is  
17 turned.

18 2. The horizontal band saw as claimed in claim 1, wherein  
19 the driving assembly of the inclination adjusting assembly comprises  
20 a shaft sleeve fastened on the pivot seat;  
21 a diving shaft rotatably mounted in the shaft sleeve and having  
22 an inside end and an outside end that extend respectively out of the shaft sleeve;  
23 a handwheel attached to the outside end of the driving shaft to  
24 turn the driving shaft; and

1                   a driving pinion attached to the inside end of the driving shaft  
2   and rotated by the driving shaft; and

3                   the adjusting gear further has a ring gear engaged by the driving pinion.

4                   3. The horizontal band saw as claimed in claim 1, wherein

5                   the bottom stationary bracket comprises a stationary block fastened on  
6   the front of the frame and a detachable block detachably attached to the front of  
7   the frame, and the stationary block and the detachable block respectively have an  
8   aligned pin hole; and

9                   the pivot seat is pivotally mounted between the stationary and the  
10   detachable blocks and further has two pivot pins respectively held in the pin  
11   holes of the stationary and the detachable blocks.

12                  4. The horizontal band saw as claimed in claim 1, wherein the front  
13   adjustment assembly further comprises a vertical supporting post mounted on  
14   the frame at a position below the bottom of the housing, the vertical supporting  
15   post comprises a stationary seat attached to the frame at the position and a  
16   threaded shank retractably screws into the stationary seat and having an enlarged  
17   top end to support the bottom of the housing.

18                  5. The horizontal band saw as claimed in claim 1, wherein the frame  
19   further comprises a base having has four corners, a vertical support with a top  
20   end integrally formed at each of the corners of the base and a transverse beam  
21   with a top mounted on the top ends of two of the vertical supports;

22                  wherein the transverse beams are parallel to each other, and the  
23   transverse passage is defined between the transverse beams.

24                  6. The horizontal band saw as claimed in claim 2, wherein

1           the bottom stationary bracket comprises a stationary block fastened on  
2   the front of the frame and a detachable block detachably attached to the front of  
3   the frame, and the stationary block and the detachable block respectively have an  
4   aligned pin hole; and

5           the pivot seat is pivotally mounted between the stationary and the  
6   detachable blocks and further has two pivot pins respectively held in the pin  
7   holes of the stationary and the detachable blocks.

8           7. The horizontal band saw as claimed in claim 6, wherein the front  
9   adjustment assembly further comprises a vertical supporting post mounted on  
10   the frame at a position below the bottom of the housing, the vertical supporting  
11   post comprises a stationary seat fastened on the frame at the position and a  
12   threaded shank retractably screws in the stationary seat and having an enlarged  
13   top end to support the bottom of the housing.

14           8. The horizontal band saw as claimed in claim 7, wherein the frame  
15   further comprises a base having has four corners, a vertical support with a top  
16   end integrally formed at each of the corners of the base and a transverse beam  
17   with a top mounted on the top ends of two of the vertical supports;

18           wherein the transverse beams are parallel to each other, and the  
19   transverse passage is defined between the transverse beams.

20           9. The horizontal band saw as claimed in claim 8, wherein  
21   the base assembly further comprises

22                   an actuator mounted on the base of the frame; and

23                   a control box mounted on the rear of the frame; and

24           the elevating device comprises

1                   two mounting brackets respectively fastened on the vertical  
2   supports of the frame, and each of the mounting brackets having a top and a  
3   bottom;  
4                   a hydraulic motor mounted on the bottom of one of the  
5   mounting brackets, actuated by the actuator and having a shaft extended upward;  
6                   two rod drive wheels rotatably mounted on each of the mounting  
7   brackets and each of the rod drive wheels having an axial threaded hole;  
8                   a belt drive wheel mounted on the top of each of the mounting  
9   bracket between the rod drive wheels;  
10                  an endless lifting belt meshed with the rod drive wheels and the  
11   belt drive wheels; and  
12                  a threaded lifting rod rotatably mounted in a respective one of  
13   the axial threaded holes in the rod drive wheels and having a top end connected  
14   to the conveyer;  
15                  wherein the shaft of the hydraulic motor concentrically connects to a  
16   respective one of the belt drive wheels to rotate the connected belt drive wheel.  
17                  10. The horizontal band saw as claimed in claim 9, wherein the elevating  
18   device further comprises  
19                  a counting disk concentrically attached to a respective one of the belt  
20   drive wheels and having an outer edge and multiple counting recesses  
21   equidistantly defined at the outer edge of the counting disk; and  
22                  a sensor mounted on the top of one of the mounting brackets, electrically  
23   connected to the control box and selectively corresponding to the counting  
24   recesses of the counting disk.